

**County of San Diego Health and Human Services
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**Summary of Changes to BLS/ALS Adult and Pediatric Treatment
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Adult Protocols:	
S-100 Introduction	<p><u>Added:</u> referenced P-104 next to “Skills List” (#1)</p> <p><u>Change:</u> w/s changed to “joules”</p> <p>Reference page updated</p>
S-101 Glossary of Terms	<p><u>Deleted:</u> “fluids are routinely Normal Saline” under IV/IO. Weight criteria under “Pediatric Patient”.</p> <p>Sinus Pause definition</p> <p>Unconsciousness definition</p> <p><u>Added:</u> “immediate or anticipated immediate need for” added to Definitive Therapy.</p> <p><u>Added:</u> “respiratory rate of less than 12” added to Opioid Overdose, Symptomatic.</p> <p><u>Added:</u> “Pediatric trauma patient is determined by age, regardless of weight.”</p> <p><u>Added:</u> delayed capillary refill under “Shock” in the patient <15years. This section reformatted to define shock in the patient <15 as someone exhibiting any one of the signs of inadequate perfusion.</p>
S-102 Abbreviation List	<p><u>Added:</u> AEMT: Advanced EMT AHA: American Heart Association LT Airway: Laryngeal Tracheal Airway MTV: Major Trauma Victim PAA: Perilaryngeal airway adjunct</p>

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P-104 ALS Skills	See end of list for ALS Skill changes
ALL	O2 Saturation prn moved from ALS to BLS
S-120 Abdominal Pain	<p>ALS: <u>Added:</u> MR x1 q 10” Zofran 4mg IV/IM/ODT for nausea/vomiting SO</p> <p><u>Added:</u> 500 ml fluid bolus IV/IO for suspected volume depletion SO. BP criteria deleted.</p> <p><u>Added:</u> “Titrate to BP 80” to note regarding suspected intra-abdominal catastrophe or suspected aortic aneurysm.</p>
S-121 Airway Obstruction	<p>BLS: <u>Added:</u> For inadequate air exchange: airway maneuvers (AHA). Abdominal thrusts. Use chest thrusts in the obese or pregnant patient.</p>
S-122 Allergic Reaction/Anaphylaxis	<p>ALS: Reformatted. Treatment divided by “Mild” “Acute” “Anaphylaxis”.</p> <p><u>Added:</u> Atrovent to first dose of Albuterol in Acute and Anaphylaxis.</p>
S-123 Altered Neurologic Function	<p>BLS: <u>Change:</u> Value changed from 75mg/dL to 60mg/dL. “Hypoglycemia (suspected) or patient’s glucometer results read <60mg/dL.”</p> <p>ALS: <u>Change:</u> Treatment of hypoglycemia value changed from 75mg/dL to 60mg/dL.</p>

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<p>S-123 Altered Neurologic Function (continued)</p>	<p><u>Change:</u> Narcan - combined the two sections: Symptomatic OD & Symptomatic OD in opioid dependent pain management patients, by adding the note “use caution in opioid dependent pain management patients”. Criteria (RR<12) and dosing unchanged (titrate to effect up to 2mg)</p> <p><u>Change:</u> administer O2 for O2 saturation <94% (was 92%). Moved to BLS section.</p> <p><u>Deleted:</u> 10 minutes between first and second dose of Versed in seizure.</p> <p><u>Added:</u> clarification note regarding seizure time: greater than 5 minutes “includes seizure time prior to arrival of prehospital provider”.</p>
<p>S-124 Burns</p>	<p>O2 Saturation prn moved from ALS to BLS</p>
<p>S-126 Discomfort/Pain of Suspected Cardiac Origin</p>	<p><u>Added:</u> Note – Report poor quality EKG, artifact, BBB, paced rhythm, atrial fibrillation or atrial flutter for exclusion from STEMI determination.</p> <p><u>Added:</u> Note - If the 12 Lead is of poor quality may re-attempt to a total of three. Do not delay transport to repeat. Repeat the 12-lead ECG only if the original ECG interpretation is NOT ***ACUTE MI SUSPECTED***, and patient’s condition worsens.</p> <p><u>Deleted:</u> “if NTG x 3 ineffective or contraindicated” – (do not need to give three NTG prior to MS administration.)</p>

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<p>S-127 Dysrhythmias</p>	<p>ALS: <u>Deleted:</u> note stating “treat dysrhythmias if they have the potential to or are causing symptoms of decreased cardiac output.”</p> <p><u>Change:</u> external cardiac pacing from BHPO to SO. (Morphine and Versed SO).</p> <p><u>Added:</u> “a minimum of” 1 mg Atropine under narrow complex bradycardia prior to pacing.</p> <p><u>Change:</u> in all appropriate sections deleted numeric joule setting and replaced with “at manufacturer’s recommended energy dose”.</p> <p><u>Added:</u> Amiodarone for ventricular tachycardia (SO) and post-conversion (BHO).</p> <p><u>Deleted:</u> “sinus pause” and replaced with “if no sustained rhythm change.”</p> <p><u>Added:</u> Note – “if return of pulses transport to STEMI Receiving Center.” (Applies ONLY to ROSC patient if initially pulseless VT/VF.)</p> <p><u>Deleted:</u> Atropine and NaHCO₃ deleted from PEA protocol.</p>
<p>S-129 Envenomation Injuries</p>	<p>BLS: <u>Change:</u> Jellyfish sting changed from “rinse with alcohol” to “liberally rinse with salt water or alcohol or vinegar, if available, for at least 30 seconds.”</p> <p><u>Added:</u> Consider heat as tolerated (not to exceed 110 degrees). Use warm water if available, not to exceed 110 degrees.</p>
<p>S-130 Environmental Exposure</p>	<p>ALS: <u>Added:</u> ?Heat Exhaustion - 500ml fluid bolus IV/IO SO, if clear lungs.</p>

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S-131 Hemodialysis	<p>ALS: <u>Added:</u> “Immediate” to the statement regarding intravenous access. Requires immediate critical need for administration and no other route available (e.g. IN/IM/PO).</p>
S-132 Near Drowning/Diving	<p>ALS: <u>Added:</u> CPAP at 5-10cm H2O SO</p>
S-133 Obstetrical Emergencies	<p>BLS: <u>Deleted:</u> “spinal immobilization when indicated” under Eclampsia.</p> <p>ALS: <u>Deleted:</u> 10 minutes between first and second dose of Versed in seizure.</p>
S-134 Poisoning/Overdose	<p>ALS: <u>Change:</u> Narcan - combined the two sections: Symptomatic OD & Symptomatic OD in opioid dependent pain management patients, by adding the note “use caution in opioid dependent pain management patients”. Criteria (RR<12) and dosing unchanged (titrate to effect up to 2mg)</p> <p><u>Added:</u> to Charcoal administration, “if ingestion within 60 minutes and recommended by Poison Center.”</p> <p><u>Change:</u> NaHCO3 in Tricyclic OD to SO from BHO</p> <p><u>Added:</u> May administer Sodium Thiosulfate 25% IV & Amyl Nitrite per inhalation or Hydroxocobalamin (Cyanokit) if cyanide kit available on site (e.g. industrial accident).</p> <p><u>Deleted:</u> 10 minutes between first and second dose of Versed for severe agitation.</p>

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S-135 Pre existing Medical Intervention	<p>BLS: <u>Deleted:</u> “check for prior IV, IM, SC, and non-routine PO medication delivery to assure minimum wait period of 30””</p> <p>ALS: <u>Change:</u> “remove dermal NTG when indicated SO” & “remove other dermal medications BHO” changed to “Remove dermal medications when indicated (CPR, shock) SO”.</p>
S-136 Respiratory Distress	<p>ALS: <u>Deleted:</u> “If available” on EtCO2 and CPAP.</p> <p><u>Added:</u> “start low and titrate pressure” to note regarding use of CPAP in the ?COPD patient.</p> <p><u>Change:</u> Epinephrine 0.3mg 1:1000 IM is BHPO if known cardiac history or history of hypertension, BP >150, age >40 years and no definite history of asthma.</p>
S-137 Sexual Assault	No changes
S-138 Shock	<p>BLS: <u>Deleted:</u> Shock position</p> <p>ALS: <u>Added:</u> Shock: (?Septic). If history suggestive of infection and two or more of the following are present suspect sepsis and report:</p> <ul style="list-style-type: none"> • Temperature >100.4 or <96.0 • HR >90 (except for patients on beta-blockers) • RR >20 <p>500ml fluid bolus SO, MR to maintain BP >90</p>
S-139 Trauma	<p>BLS: <u>Added:</u> Keep warm</p>

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S-139 Trauma (continued)	<p>ALS: <u>Changed:</u> “BP <90” to “if MTV IV/IO enroute</p> <p><u>Changed:</u> BP goal in the trauma patient – “500ml fluid bolus to maintain BP 80” (changed from BP >90). BP goal is not >80 but a target of 80.</p>
S-140 Triage, Multiple Patient Incident	No changes
S-141 Pain Management	<p>ALS: <u>Change:</u> Morphine administration in “2-4mg increments” deleted. Now reads, “...2-10mg IV”</p> <p><u>Added:</u> Ondansetron (Zofran) for nausea/vomiting with MS administration.</p>
S-142 Psychiatric/Behavioral Emergencies	<p>ALS: <u>Deleted:</u> 10 minutes between first and second dose of Versed for severe agitation.</p>
Pediatric Protocols:	
ALL	O2 Saturation prn moved from ALS to BLS
P-160 Pediatric Airway Obstruction	<p>BLS: <u>Added:</u> 5 back blows and chest thrusts for infants <1year. MR prn.</p> <p><u>Added:</u> Note referencing S-167 (If suspected epiglottitis: Place patient in sitting position. Do not visualize the oropharynx STAT transport. Added note: Treat as per Respiratory Distress Protocol S-167.</p>

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P-160 Pediatric Airway Obstruction (continued)	<u>Change</u> : “For inadequate air exchange: airway maneuvers (AHA). Abdominal thrusts. Use chest thrusts in the obese or pregnant patient.” Replaces statement that maneuvers done only if complete airway obstruction.
S-161 Pediatric Altered Neurological Function	<p>BLS: <u>Change</u>: Value changed from 75mg/dL to 60mg/dL. “Hypoglycemia (suspected) or patient’s glucometer results read <60mg/dL.” (Infant and neonate values unchanged.)</p> <p>ALS: <u>Change</u>: Treatment of hypoglycemia value changed from 75mg/dL to 60mg/dL. (Infant and neonate values unchanged.)</p> <p><u>Deleted</u>: 10 minutes between first and second dose of Versed in seizure.</p> <p><u>Added</u>: clarification note regarding seizure time: greater than 5 minutes “includes seizure time prior to arrival of prehospital provider”.</p> <p><u>Added</u> note: Versed not required for simple febrile seizure.</p>
S- 162 Pediatric Allergic Reaction	<p>ALS: Reformatted. Treatment divided by “Mild” “Acute” “Anaphylaxis”.</p> <p><u>Added</u>: Atrovent to first dose of Albuterol in Acute and Anaphylaxis.</p>
S-163: Pediatric Dysrhythmias	<p>BLS: <u>Deleted</u>: Age restriction on AED.</p> <p><u>Added</u>: “Begin compressions, after first 30 compressions give first ventilations.”</p> <p>ALS: <u>Deleted</u>: “sinus pause” under SVT, changed to “If no sustained rhythm change” after Adenosine MR.</p>

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<p>S-164 Pediatric Envenomation Injuries</p>	<p>BLS: <u>Change:</u> Jellyfish sting changed from “rinse with alcohol” to “liberally rinse with salt water or alcohol or vinegar, if available, for at least 30 seconds.”</p> <p><u>Added:</u> Consider heat as tolerated (not to exceed 110 degrees). Use warm water if available, not to exceed 110 degrees.</p>
<p>S-165 Pediatric Poisoning/Overdose</p>	<p>ALS: <u>Added:</u> to Charcoal administration, “if ingestion within 60 minutes and recommended by Poison Center.”</p>
<p>S-166 Pediatric Newborn Deliveries</p>	<p>BLS <u>Change:</u> statement regarding suctioning, “suction baby’s airway if excessive secretions causing increased work of breathing, first mouth, then nose, suction after fully delivered.”</p> <p><u>Added:</u> wait 60 seconds after delivery prior to clamping and cutting cord.</p> <p><u>Change:</u> regarding premature or low birth weight infants: “after delivery” added to statement regarding removing infant from amniotic sac.</p> <p><u>Change:</u> Criteria for initiation of CPR changed to <20 weeks. (eyelids fused & weight removed from criteria).</p>
<p>S-167 Pediatric Respiratory Distress</p>	<p>BLS: <u>Added:</u> “May assist patient to self medicate own prescribed MDI ONE TIME ONLY. Base Hospital contact required prior to any repeat dose.”</p> <p>ALS: <u>Added:</u> note regarding “avoid Albuterol in Croup”.</p> <p><u>Added:</u> “at rest” to nebulized epinephrine treatment - Respiratory Distress with Stridor at rest.</p>

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S-168 Pediatric Shock	BLS: <u>Added:</u> “Keep Warm”
S-169 Pediatric Trauma	BLS: <u>Added:</u> “neuro deficit/blunt trauma” to spinal stabilization. ALS: <u>Added:</u> “If MTV IV/IO en route”
S-170 Pediatric Burns	O2 Saturation prn moved from ALS to BLS
S-172 ALTE	<u>Change:</u> under the definition, “characterized by some combination of:” changed to “characterized by one or more of the following.”
ALS Skills (P-104):	
P-104 ALS <u>Skills</u> List	
CPAP	<u>Added:</u> pneumonia or drowning added to indications. <u>Added:</u> to comment section: “Patients with a GCS of <9 are unconscious and unlikely to comply. Non-verbal patients with poor head/neck tone may be too obtunded for CPAP. BVM assisted ventilation is the appropriate alternative.”
12-Lead EKG	<u>Added:</u> “Report poor quality EKG, artifact, paced rhythm, atrial fibrillation or atrial flutter for exclusion from STEMI assessment”

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12-Lead EKG (continued)	<u>Added</u> : “Repeat the 12-lead EKG only if the original EKG interpretation is NOT ***ACUTE MI*** and patient’s condition worsens. Do not delay transport to repeat.”
Esophageal Detection Device – aspiration based	<u>Added</u> : Laryngeal/Tracheal (King) airway to contraindications. <u>Added</u> : to comments – Optional
External Cardiac Pacemaker	<u>Changed</u> : “Yes” to Standing Order column. <u>Added</u> : “BP <90” to indications for unstable wide complex bradycardia.
Glucose Monitoring	<u>Added</u> : to comments “Repeat BS must be done if patient left on scene and initial was abnormal. (AMA/Release).”
Indwelling Devices Dialysis Catheter Assess Shunt/Graft-AV Assess	<u>Added</u> : if needed for “immediate” definitive therapy ONLY “and no other medication delivery route available.”
Injection: SC	<u>Deleted</u> : skill removed from all protocols.
Intubation- ET/Stomal	<u>Change</u> : Apply c-collar to all intubated patients changed to “If intubated patient is to be moved apply c-collar prior to moving.”
Intubation: Perilaryngeal airway adjunct (PAA)	<u>Changed</u> : Re-formatted - ETAD and LT airway combined under PAA
Nasogastric/orogastric tube	<u>Added</u> : to comments “If NG/OG tube needed in a patient with a King Airway, insertion should be via the suction port, if available.”

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Needle Thoracostomy	<p><u>Change:</u> Preferred site is 2nd/3rd ICS in mid-clavicular line on the involved side.</p> <p><u>Changed:</u> “Yes” to Standing Order column.</p>
Spinal stabilization	<p><u>Added:</u> “if no neuro deficit” added to “Optional if”</p> <p><u>Added:</u> “Optional if” criteria applies to patients <65 years of age.</p> <p><u>Added:</u> “No language barrier” added to list of “AND all of the following are present and documented:”</p>